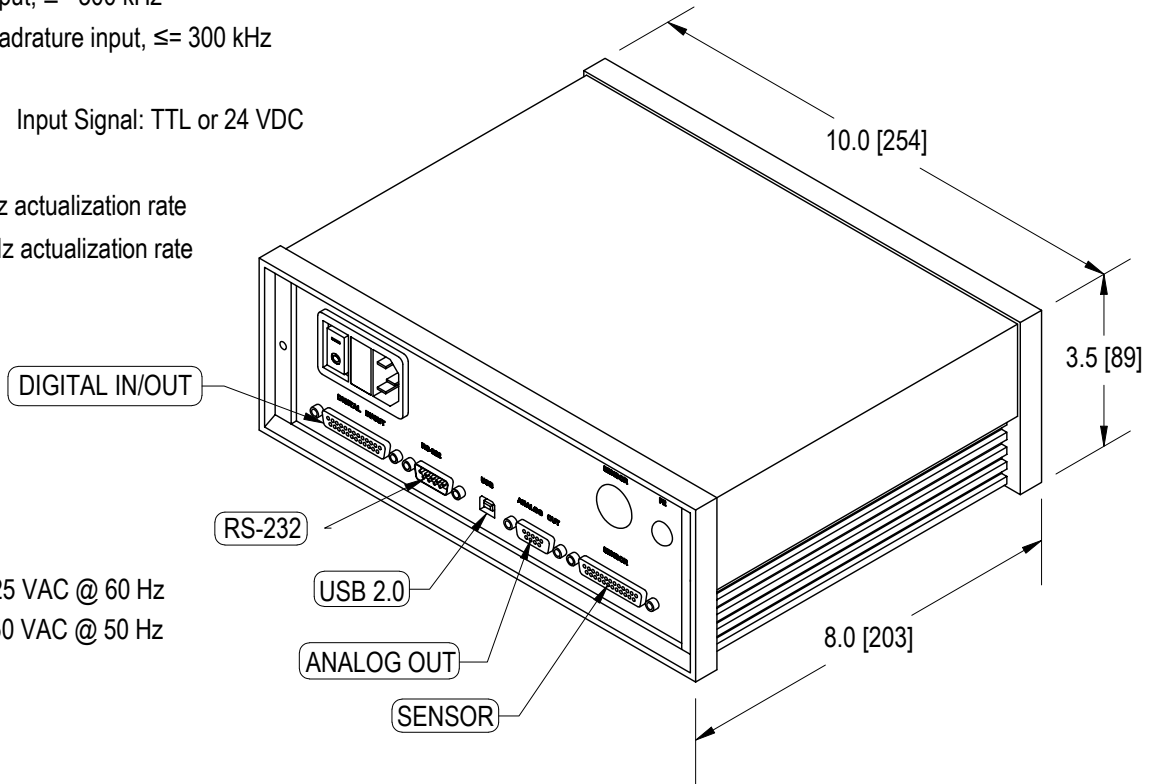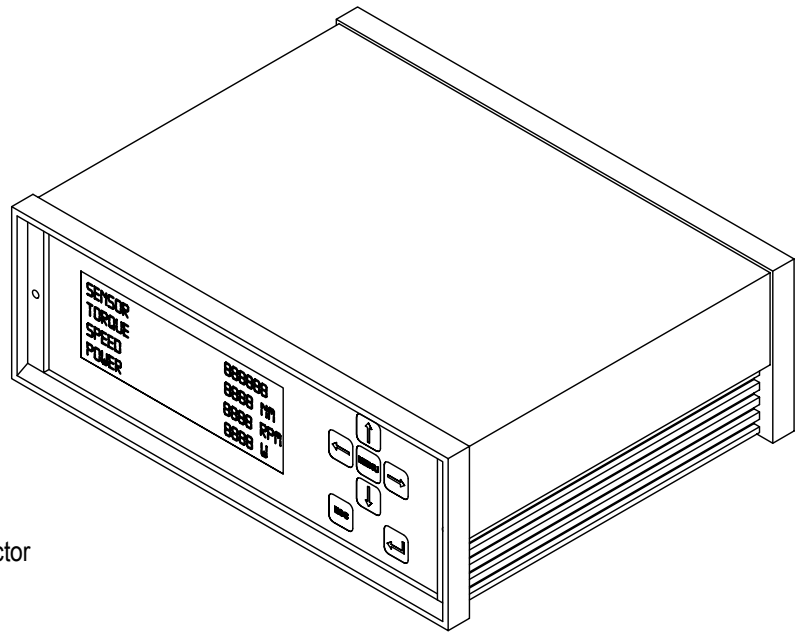# FUTEK MODEL IBT100

Drawing Number: FI1090-B

INCH [mm]

Bench Top Digital Display
For Rotary Torque Sensors

FEATURES:

- Measures torque, speed and angle of rotation.
- Stores up to 20 sensor parameters.
- Displays 4 x 20 characters.
- Units: Nmm, Ncm, Nm, kNm, N, kN, W, kW, MW, lbf, lbf-ft, lbf-in, oz-in
- Measuring rate ≤ 10 kHz.
- Accuracy ≤ ± 0.1% f.s.
- Operating Temperature: 32°F-140°F [0°C-60°C]
- Stores up to 5000 measured values, up to 24hrs.
- Sensor Input: 0.5 mV/V - 3.5 mV/V, ±10VDC, 4 or 6 conductor
- Sensor Excitation: +5V, ±12V, or +24V
- Speed Input: TTL, quadrature input, ≤= 300 kHz
- Angle of Rotation Input: TTL, quadrature input, ≤= 300 kHz
- 8 digital logic I/O signal each.
  Output Signal: Open Collector;   Input Signal: TTL or 24 VDC
- 3 Analog Outputs:
  1 Output at : ± 10 VDC ≤ 10 kHz actualization rate
  2 Outputs at : ± 10 VDC w/ 1 kHz actualization rate
- 2 Communication Ports:
  RS-232 (up to 230 kbps)
  USB 2.0
- Weight: 70.5 oz. [2 kg]

OPTIONS:

- Input Power: FSH02121, 105-125 VAC @ 60 Hz
  FSH02426, 210-250 VAC @ 50 Hz

10.0 [254]

3.5 [89]

8.0 [203]

DIGITAL IN/OUT

RS-232

USB 2.0

ANALOG OUT

SENSOR

DB25 Female	DIGITAL IN/OUT Specification	DB25 Female	DIGITAL IN/OUT Specification
1	Output COM	14	Output COM
2	Output 1	15	Output 2
3	Output 3	16	Output 4
4	Output 5	17	Output 6
5	Output 7	18	Output 8
6	Output COM	19	Output COM
7	+24V (80 mA)	20	Input COM
8	Input COM	21	Input 1
9	Input 2	22	Input 3
10	Input 4	23	Input 5
11	Input 6	24	Input 7
12	Input 8	25	Input COM
13	Input COM		

DB25 Female	SENSOR Specification	DB25 Female	SENSOR Specification
1	Bridge supply +5V	14	Bridge supply 0V
2	Sense +	15	Sense -
3	Bridge signal +	16	Bridge signal -
4	Torque output (active transducer) +	17	Torque output (active transducer) -
5	-12V	18	Counter 2 (angle track A leading / speed)
6	Counter 1 (zero pulse)	19	Counter 3 (angle track B)
7	+5V	20	Counter 4 (signal active transducer freq.)
8	GND (+5V)	21	GND (± 12V)
9	TXD*	22	GND TTL-output
10	RXD*	23	Bridge control signal
11	+12V	24	GND (counter)
12	TTL-output for active transducer (control)	25	GND (+24V)
13	+24V		

DB9 Female	ANALOG OUT Specification
1	Output 1+
2	N.C.
3	N.C.
4	N.C.
5	Output 2+
6	Output 1 -
7	Output 3+
8	Output 3 -
9	Output 2 -